Integrating Carrier-Based Electronic Attack into Conventional Army Doctrine

Carrier-based EA-6Bs used on-call jamming to successfully disrupt enemy C2 nodes during joint operations in Afghanistan. Authors Ronald Reis and Glen F. Robbins relate the intriguing details and argue that carrier-based electronic warfare assets should be more thoroughly integrated into Army doctrine.

THE PROLIFERATION of affordable communications technology provides even remote, developing countries with substantial connectivity. One person with a cellular phone or an off-the-shelf, push-to-talk radio can influence a battle's outcome. A powerful example of this occurs in the movie *Black Hawk Down*.[1] A small boy holds a cellular phone high above his head to transmit the sound of Black Hawk helicopters flying toward Mogadishu. If that sound had never reached its intended recipient, would the battle have unfolded differently? Joint force commanders in the modern battle arena must consider this question. The lives of their soldiers might depend on the answer.

Well before sunrise on 17 August 2002 in the North Arabian Sea, a lone EA-6B Prowler catapulted from the deck of the nuclear-powered attack aircraft carrier USS *George Washington* while the rest of Carrier Air Wing 17 (CVN-17) slept. The aircraft and its four-member crew turned north and headed for Afghanistan to support the initial airborne assault of Operation Mountain Sweep. The Prowler crew's mission was to deny the free and instantaneous flow of tactical information to and from the enemy's decisionmakers on the battlefield with preplanned electronic attack (EA). This was the first of 13 EA-6B missions flown in direct support of Operation Mountain Sweep, and it marked an evolutionary step toward a symbiotic relationship between conventional U.S. Army ground forces and the EA-6B community. The Army requested this support to minimize the vulnerabilities of large rotary-wing aircraft and mechanized troop movements that had come to light in earlier operations. This new relationship was the result of several key events and the coincidental gathering of the right personnel at the right place at the right time.

Operation Anaconda, code-named after the Union Army's plan to encircle and strangle the Confederacy during the Civil War, took place in early March 2002 in Afghanistan. The operation, which was designed to be the final blow against the last-known substantial force of al-Qaeda and Taliban fighters, took place in the Shah-i-khot Valley, a rugged mountainous region of eastern Afghanistan. In this same valley, in 1987, the Soviet Union lost over 250 soldiers in a single day of fighting.

The Army had opted for light infantry tactics and maneuver warfare using CH-47 Chinooks to place troops in key positions. Stiff enemy resistance forced a withdrawal after two CH-47 Chinooks were shot down

and five more were damaged. Ten U.S. servicemen died. Unfortunately, pockets of determined enemy still remained, and the Army went back to the planning table to build another operation to expunge al-Queda and Taliban fighters from this notoriously dangerous region.

The Prowler Myth

During early summer 2002, the Army conducted cordon and search operations in central Afghanistan. By this time, the *George Washington* and CVW-17 had relieved the USS *John F. Kennedy* and CVW-7 in the Gulf of Oman. CVW-17 was then tasked with direct support of coalition combat operations over Afghanistan.

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The conventional Army's reluctance to use preemptive jamming in Afghanistan resulted from several factors. First, Army planners did not know that EA-6Bs were available to support them prior to Operation Mountain Sweep. As a result, the idea to incorporate carrier-based electronic attack came late in the planning process and was never properly staffed. Second, there was a misconception of potential fratricide against friendly forces' communications because of the lack of a working understanding of EA-6B capabilities. As a result, the EA-6Bs' unique ability to control the electromagnetic spectrum was not maximized.

Instead of helping the Army by denying al-Qaeda and Taliban fighters electronic communications, EA-6Bs were flying a mission that the Coalition Air Operations Center (CAOC) labeled as on-call electronic warfare. The CAOC tasked the EA-6Bs with conducting electronic surveillance (ES) while being an airborne alert asset for communications jamming. The mission was flown at the same time and to the same location each day. The likelihood of a request for jamming support during that small window of coverage was remote. Because they did not communicate with an air liaison officer or ground forward air controller, EA-6B crews did not clearly understand what was taking place on the ground. Their mission lacked focus, and no specific tasking was ever delineated. As a result, electronic surveillance was circumstantial and random. Because the time between collection and analysis was often weeks, rarely, if ever, did EA-6B missions produce tactically relevant information. If an airborne refueling asset dropped out, the EA-6B was the first aircraft to be cut from the air tasking order. Also, if close air support (CAS) assets were called in to drop live ordnance, the EA-6B was ordered to return to the ship.

Days before the *George Washington* arrived in the Gulf of Oman, liaison officers (LNOs) from CVW-17's EA squadron were sent to the CAOC and remained in place for the entire time the battle group was in theater. Two CVW-17 LNOs were graduates of the Electronic Attack Weapons School and were Prowler tactics instructors (PTIs), the backbone of an EA-6B squadron's tactical expertise. PTIs undergo extensive training inside and outside the cockpit that concentrates as much on integration with the joint community as on tactical innovation.

To rectify the deficiencies of the EA-6Bs XEW mission, the CVW-17 LNOs began an aggressive educational campaign that included calls to Army leaders in Bagram, Afghanistan. Also, a PTI who had been supporting regional forces arrived in Bagram to brief key personnel on EA-6B capabilities and to explain how carrier-based EA-6Bs and land-based airborne intelligence, surveillance, and reconnaissance (ISR) platforms could be used to support conventional ground forces in the region. Army leaders were unaware that a carrier-based EA-6B, whose primary mission was to disrupt the enemy's command and control nodes through on-call jamming, was reserved for theater support and was to remain on standby 24 hours a day. Of most importance, the PTI ex-

Deck crew from the USS *Abraham Lincoln*'s crash and salvage team watch the launch of a EA-6B during Operation Iraqi Freedom, 29 March 2003.

plained how the relationship between EA-6Bs and conventional ground forces could develop and codify how airborne EA platforms supported by ISR assets could affect the battlespace. When called for, EA support could and would be provided.

Army leaders' interest was piqued. The timely briefings in Bagram, coupled with the aggressive educational push from the CVW-17 LNOs at the CAOC and the lessons learned from Operation Anaconda, were enough to convince Army leaders that carrier-based EA support could be integrated into conventional operations. Also, the EA-6Bs' record of success in previous campaigns was enough to assuage concerns about fratricide. However, the biggest challenge still lay ahead.

Operation Mountain Sweep

The past record of success was with small-scale operations. Operation Mountain Sweep was the largest offensive conducted in Afghanistan to date, employing nearly 2,000 troops to effect the big push into the mountainous region between Gardez and Khowst. This was dangerous country. The major threat came from small, dispersed cells of resistance linked by radios and telephones. Using standoff rockets and command-detonated mines, the threat only attacked targets of opportunity. After the Chinooks ran into withering fire from the well-coordinated, disciplined adversary, the Army was not willing to put them through the gauntlet again. To reduce this threat, the Army opted to use carrier-based EA-6Bs to support the helicopter assault in an attempt to deny tactical coordination between enemy cells. Requesting support was only the first step, however. Maintaining communication between the Army and Navy became the bigger challenge.

One major problem was coordination between the Army in Bagram and the EA-6Bs on the ship. The two were nearly 1,000 miles apart, and there was no permanent LNO in Bagram. The first 14-line EA request for Operation Mountain Sweep came from the Combined Task Force (CTF)-Mountain information operations (IO) officer. The request

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went through the CTF-Mountain fires chief to the CAOC master air attack planning cell, which forwarded it to the EA squadron on the carrier. The request was not specific enough for the EA-6B aircrews to determine what the Army wanted for the desired effect. To make matters worse, the CVW-17 LNO's only point of contact in Bagram, the CJTF-180 electronic warfare officer (EWO), had left the theater on emergency leave. As a result, the LNO could not directly contact the CTF-Mountain IO officer.

82d Airborne Division soldiers during Operation Mountain Sweep, 19 August 2002.

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Operation Mountain Sweep was to begin in only a few days, and little specific coordination had been done. A CVW-17 LNO finally got through by telephone to an individual, who by pure coincidence was standing in for the CJTF-180 EWO. The stand-in was a U.S. Air Force officer who happened to be in Bagram on an independent mission from the Pentagon and was not supposed to stay for more than a few days. Being a former electronic warfare officer, he immediately recognized the urgency of the situation, and he put the CVW-17 LNO in direct contact with the CTF-Mountain IO officer. The communication gap was finally closed. Shortly thereafter, and only a day before Operation Mountain Sweep was to began, the CTF-Mountain IO officer was finally able to coordinate directly with the EA-6B squadron.

Yet another remarkable coincidence supported the successful integration of EA-6Bs into Operation Mountain Sweep. The officer in charge (OIC) of the Electronic Patrol Aircraft, the EP-3 Automated Intelligence Reconnaissance Exploitation System (AIRES) II detachment in Bahrain, was a former instructor at the EA-6B community's Electronic Attack Weapons School. Before Operation Mountain Sweep began, EP-3s and EA-6Bs had not been working together in theater to directly support conventional Army forces. Despite that fact, they were used to working with each other and had been used extensively in Operation Enduring Freedom to support Special Forces. Tactics had been developed for the two platforms to work together, melding their unique capabilities. Army leaders were not aware of this and did not request to have the EP-3 scheduled to fly during the EA-6Bs' window of coverage. Once again, adjustments were made at the last minute. The OIC made this happen because of his intimate understanding of the overarching requirements.

The Army also employed organic collection assets on the ground that could have helped the EA-6Bs accurately target enemy communications. The CVW-17 LNOs attempted to push the frequency lists used by the EA-6Bs and EP-3s to the Prophet Teams through the CTF-Mountain IO officer, but the teams had already deployed to the field. The EA-6B had a single-channel ground and airborne radio set, which could have allowed real-time coordination with ground collection units. Unfortunately, no prior coordination had been done, so this capability was not used. The CTF-Mountain IO officer later reported that being able to monitor ground-collection discussion and link ground and airborne assets would have greatly improved the ability to focus the EA-6Bs' capability.

What was the true effect of electronic attack on the battlefield? Measuring quantifiable results without the benefit of explosions or physical evidence is difficult. Communications jamming often results more in what cannot be heard or detected than in what can be. After Operation Mountain Sweep, the CTF-Mountain IO officer reported, "Ground collection in the target areas surrounding Gardez and Khowst is done primarily with organic collection assets. They said that there was no effective

collection during those periods in which the EA-6Bs were operating because 'they' were jammed. Of course, the actual collection asset wasn't jammed, but the targets they normally collect upon were being jammed and that was the intent."[2]

Successfully Shaping and Executing the Plan

When planning ground assault or reconnaissance missions, airborne electronic attack should be treated like any other effects-based strike asset. An intimate knowledge of the threat, coupled with a specific plan for mitigating it, should lead the planner to consider all he has available to support the objectives. A fundamental understanding of those assets is necessary to successfully shape and execute the battle plan.

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Airborne EA should be requested in the same manner CAS aircraft are requested—through the fires coordination element to the theater air operations center. When EA-6Bs are filling the communication-jamming role, an ISR platform should support them. Although EA-6Bs are attached to every carrier air wing, and at least one additional squadron is forward deployed on land, they are usually heavily tasked in theater. The allocation of these high-demand, low-density assets is subject to many factors, but that should never prevent planners from requesting tactical EA support through the proper channels.

Operation Mountain Sweep proved that land- and carrier-based EA/ES assets can and should be integrated into conventional Army combat planning and operations. Several innovative Army and Navy planners saw the need and took the initiative to pave the way for the first successful integration of carrier-based EA-6Bs and conventional ground forces engaged in combat operations. Now, the EA-6B community and the Army must continue building on this success and find new ways of training and fighting together. General Dwight D. Eisenhower once said, "Separate ground, sea, and air warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements, with all services, as one single concentrated effort."[3] During Operation Mountain Sweep, successful coordination came at the eleventh hour. The pieces that fell together were the result of hard work and a lot of luck rather than by design. The next time a combat operation requires airborne electronic attack, we might not be so fortunate. ***MR***

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NOTES

1. Ridley Scott, director, *Black Hawk Down* (Hollywood, CA: Columbia Tristar, 2002).
2. Major Michael Williams, CTF-MTN IO Officer. Source unknown.
3. General Dwight D. Eisenhower quoted in Naval Doctrine Publication 5, *Naval Planning* (Washington, DC: U.S. Government Printing Office, date unknown), 26.

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